

IN THE CLAIMS

Please amend the claims as follows:

1 1. (Canceled)

1 2. (Canceled)

1 3. (Canceled)

1 4. (Canceled)

1 5. (Canceled)

1 6. (Canceled)

1 7. (Canceled)

1 8. (Canceled)

1 9. (Canceled)

1 10. (Canceled)

1 11. (Canceled)

1 12. (Canceled)

1 13. (Canceled)

1 14. (Canceled)

1 15. (Canceled)

1 16. (Previously Amended) A method for monitoring the film build
2 thickness of workpieces on which a first film build process has been performed,
3 comprising the steps of:

4 calculating a first C_{pk} of workpieces on which a first film build
5 process has been performed;

6 acquiring data relating to parameters of a second film build
7 process in which at least one of the parameters of the first film build process has
8 been changed;

9 calculating a second C_{pk} of the second film build process
10 from said acquired data; and

11 calculating the difference between the first C_{pk} and the
12 second C_{pk} to ascertain the relationship between said difference and the
13 changed parameter.

1 17. (Previously Added) A method as defined in claim 16, including the
2 step of acquiring cost data relating to said first film build process and cost data
3 relating to said second film build process; and
4 generating a cost difference utilizing the first film build
5 process and the second film build process utilizing the first C_{pk} and the second
6 C_{pk} .

1 18. (Previously Added) A method as defined in claim 16, including the
2 step of calculating the C_{pk} of at least one of said film build processes from range
3 values of the film build thickness of the corresponding film build process.

1 19. (Previously Added and Amended) A method as defined in claim
2 16, including the step of acquiring selected coating millages relating to said first
3 film build process and selected coated millages relating to said second film build
4 process; and
5 generating a cost difference between the first film build
6 process and the second film build process utilizing the first C_{pk} and the second
7 C_{pk} to ascertain the mean shift in Film Build millages.

1 20. (Previously Added and Amended) A method as defined in claim
2 16, including the step of acquiring target range values relating to said first film

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3 build process and target range values relating to said second film build process;
4 and
5 generating a cost difference between the first film build
6 process and the second film build process utilizing the first C_{pk} and the second
7 C_{pk} .

1 21. (Previously Added) A method as defined in claim 16, including the
2 step of acquiring data of the cost difference between the first and the second film
3 build processes in which both of said film build processes have the same film
4 thickness averages but with a different C_{pk} for the first and the second film build
5 processes.

1 22. (Previously Added and Amended) A method as defined in claim 16,
2 including the step of acquiring data of the first film build process including
3 Coating Minimum Specifications, Actual Film Thickness Average, Actual Film
4 Thickness Range, the C_{pk} of the first film process, and a subgroup size.

1 23. (Previously Added and Amended) A method as defined in claim 16,
2 including the step of acquiring data regarding film build usage, of the first film
3 build process and film build usage data of the second film build process, and in
4 which the changed parameter is the film build material usage of said first film
5 process, and then calculating the difference in film build material usage from the
6 difference in the first C_{pk} value and the second C_{pk} value.

1 24. (Previously Added and Amended) A method as defined in claim 16,
2 in which the changed parameter is the process control limits of the second film
3 build process and then calculating the change in film build material usage from
4 the difference in the first C_{pk} value and the second C_{pk} value.

1 25. (Previously Added) A method as defined in claim 22, including the
2 step of selecting target range values for the first film process and the second film
3 process, and then calculating the differences in the film build material usage from
4 the difference between the first C_{pk} value and the second value C_{pk} .

1 26. (Previously Added and Amended) A method as defined in claim 16,
2 including the step of acquiring data of the film build material usage of the first film
3 build process, then selecting coating millages for at least one of said film build
4 processes, and then calculating the change in film build material usage from the
5 difference between said first C_{pk} value and the second C_{pk} value.

1 27. (Previously Added and Amended) A method as defined in claim 16,
2 including the step of acquiring data regarding the material usage values of the
3 first film build process and the film usage of the second film build process based
4 on using the same film thickness with different variability for the first and the
5 second film build processes and then calculating the change in film build usage
6 from the difference between said first C_{pk} value and the second C_{pk} value.

1 28. (Previously Added and Amended) A method as defined in claim 16,
2 including the step of calculating the optimal variability of the first film build
3 process by adjusting the film millage average thereof, using said first C_{pk} , and in
4 which optimal variability is defined as the lowest standard deviation in a run of
5 seven or more units in the film build process.

1 29. (Previously Added and Amended) A method as defined in claim 16,
2 including the step of calculating the optimal variability of said first film build
3 process by adjusting the film millage costs thereof utilizing said first C_{pk} and in
4 which optimal variability is defined as the lowest standard deviation in a run of
5 seven or more units in the build process.

1 30. (Previously Added and Amended) A method as defined in claim 16,
2 including the step of adjusting the variability of the first film build process to
3 optimize the film millage average.

1 31. (Previously Added and Amended) Apparatus for monitoring the film
2 build thickness of workpieces on which a first film build process has been
3 performed, comprising:
4 computer-implemented means for calculating a first C_{pk} of
5 the workpieces on which the first film build process has been performed;

6 means for acquiring data relating to parameters of a second
7 film build process in which at least one of the parameters thereof has been
8 changed;

9 computer-implemented means for calculating a second C_{pk}
10 of the second film build process; and

11 computer-implemented means for calculating the difference
12 between the first C_{pk} and the second C_{pk} to develop a relationship between said
13 difference and the changed parameter.